

Yvonne Christian¹, Amay Sanjay Redkar¹, Naveen Kumar¹, Shine Varghese Jancy³, Aneesh Chandrasekharan³, T.R. Santhoshkumar^{3*} and Vibin Ramakrishnan^{1,2,*}

¹Department of Biosciences and Bioengineering, Indian Institute of Technology Guwahati, India

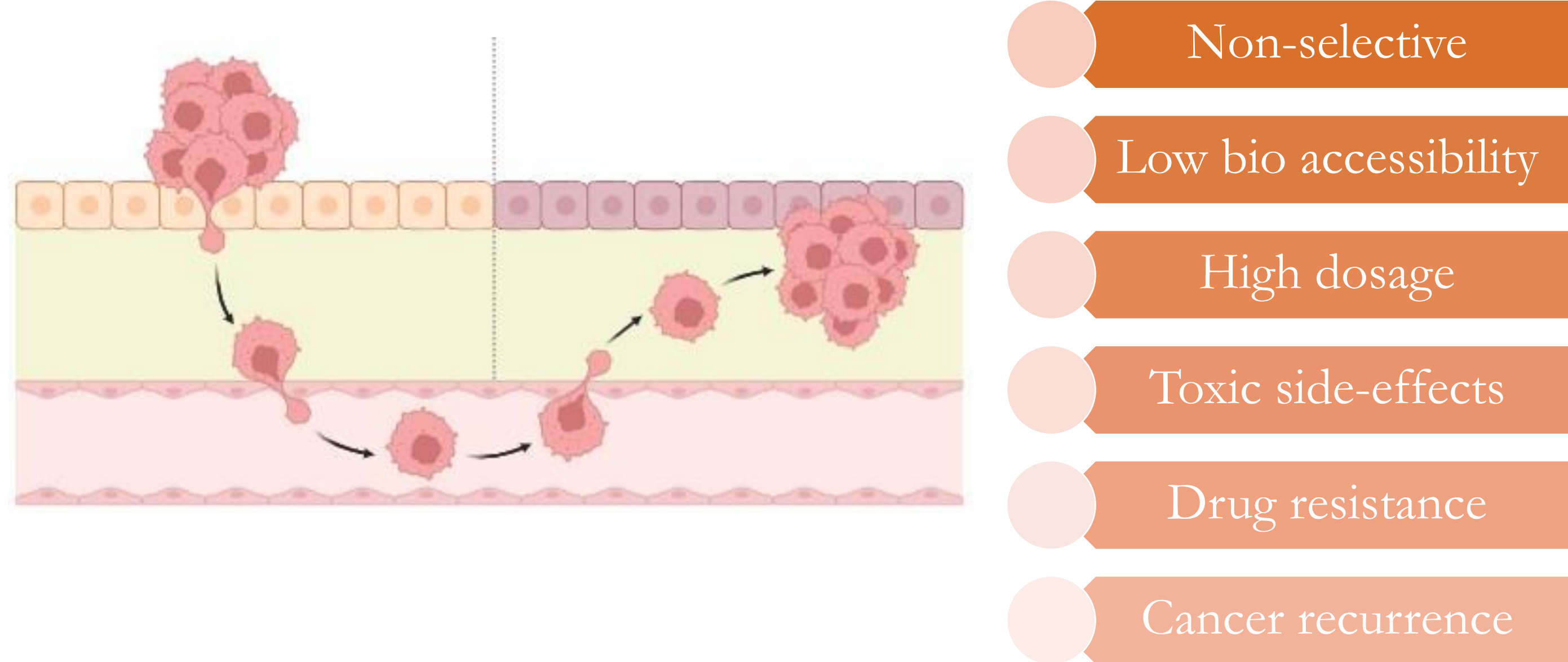
²Mehta Family School of Data Science & Artificial Intelligence, Indian Institute of Technology Guwahati, India

³Cancer Research Program, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, India



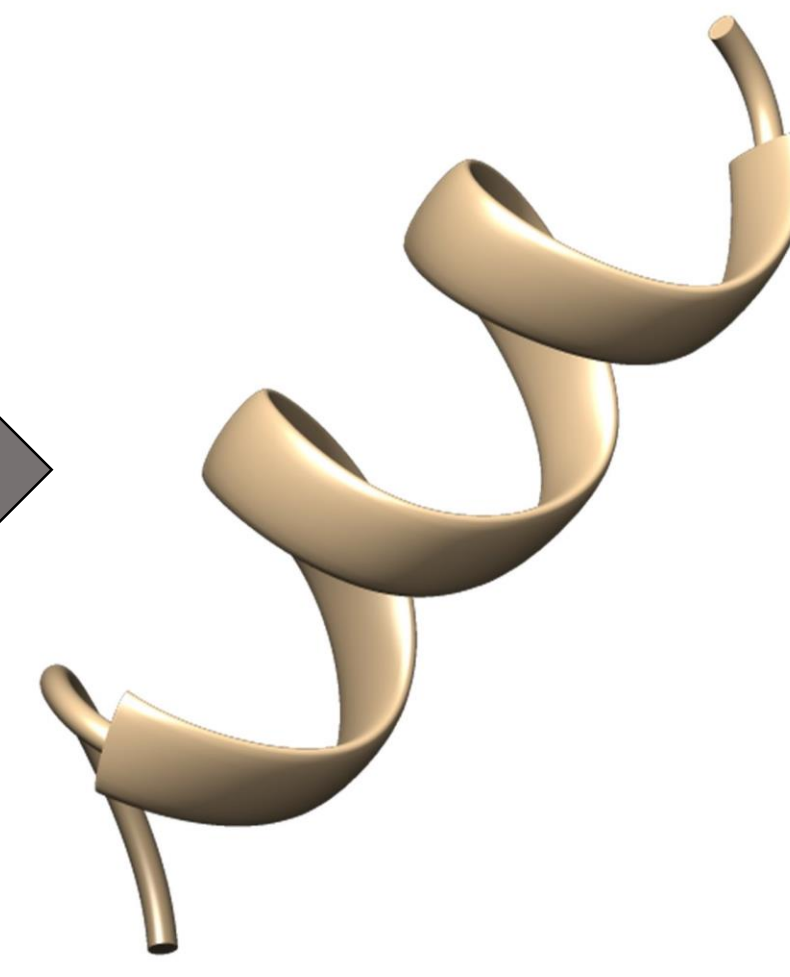
BACKGROUND AND MOTIVATION

Shortcomings of conventional cancer therapies



Cell-penetrating peptides (CPPs)

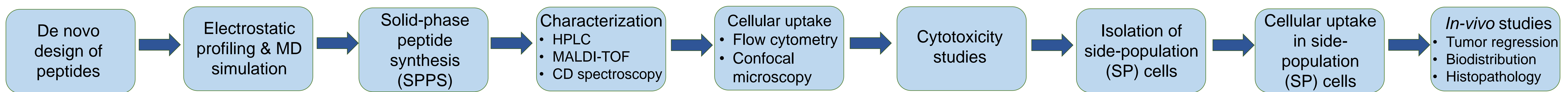
Drug Delivery Vehicles



Advantages

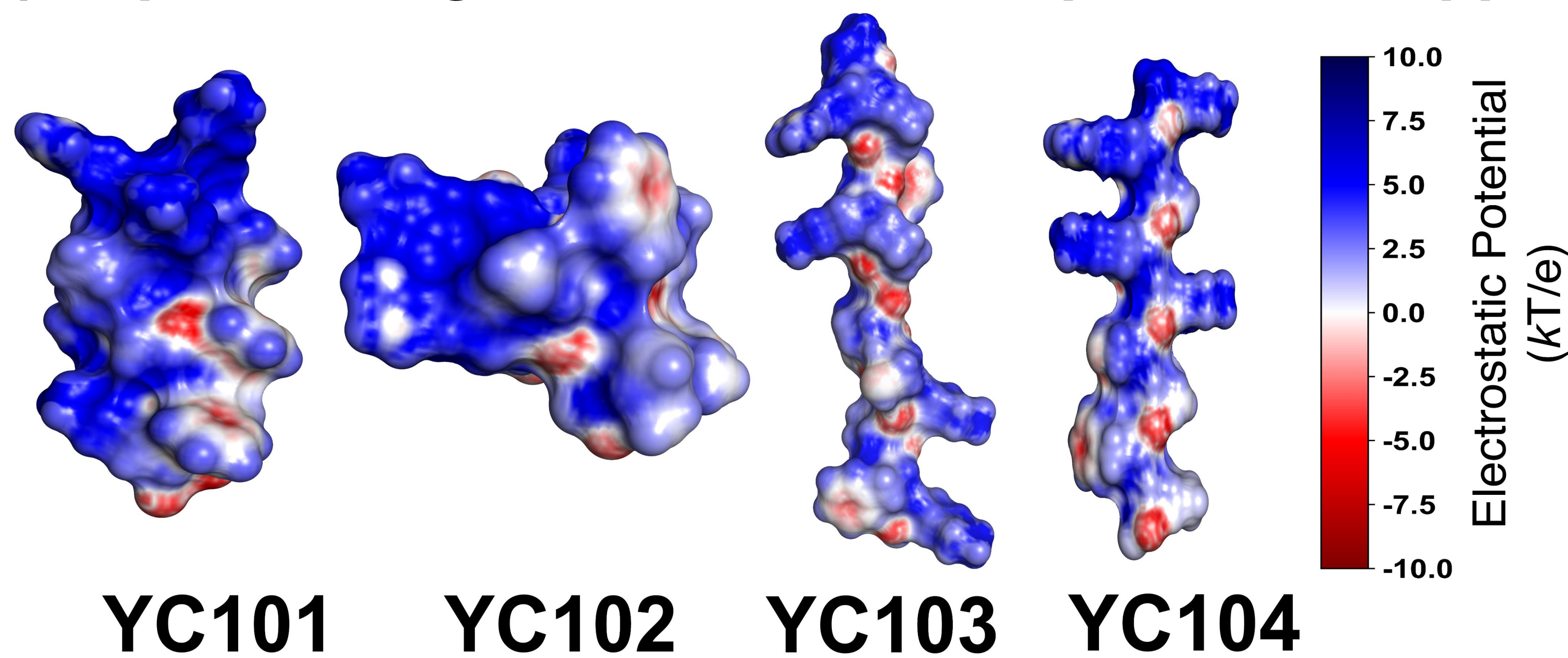
- ✓ Internalize efficiently
- ✓ Biocompatible
- ✓ Easy to synthesize
- ✓ Wide variety of cargo

METHODOLOGY

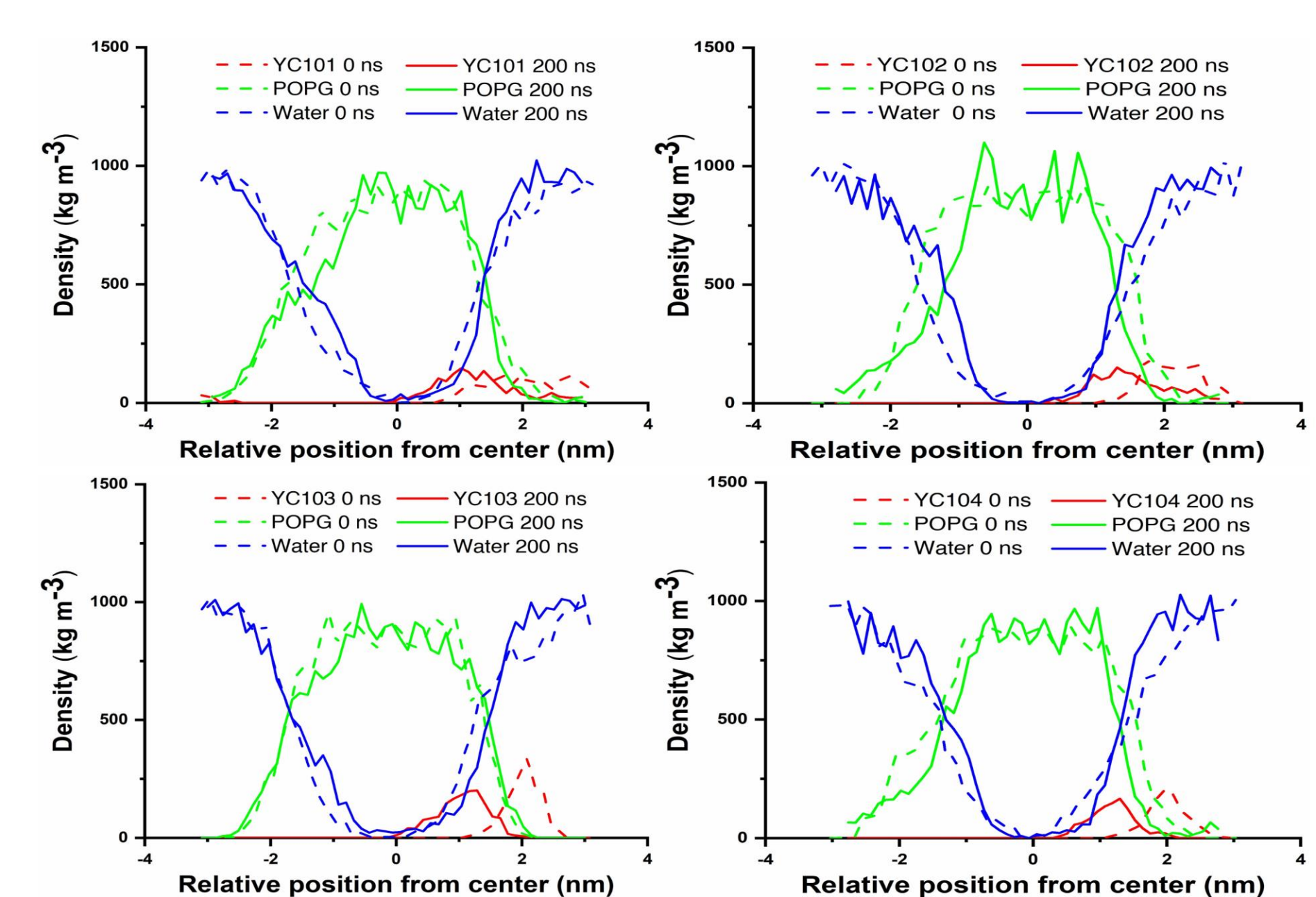


RESULTS

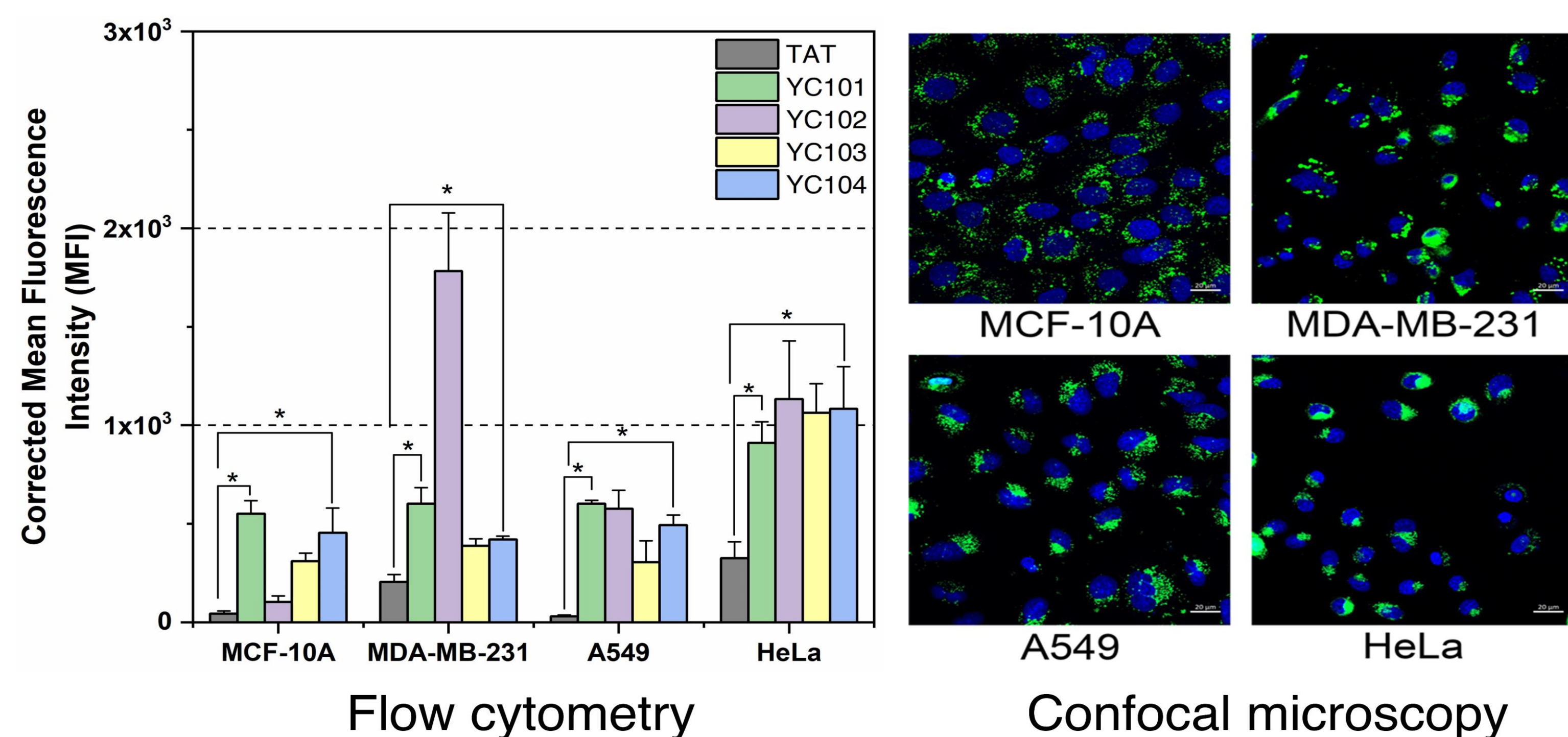
(a) Peptide design and electrostatic potential mapping



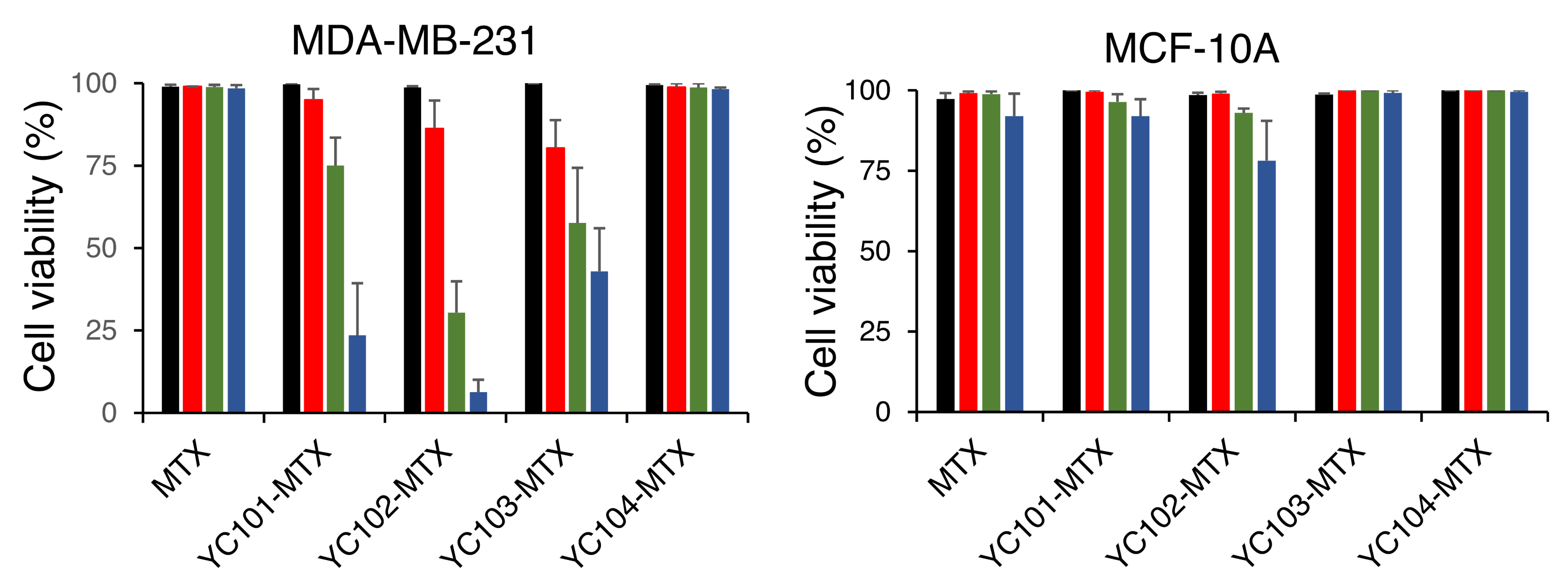
(b) Molecular Dynamics Simulation studies



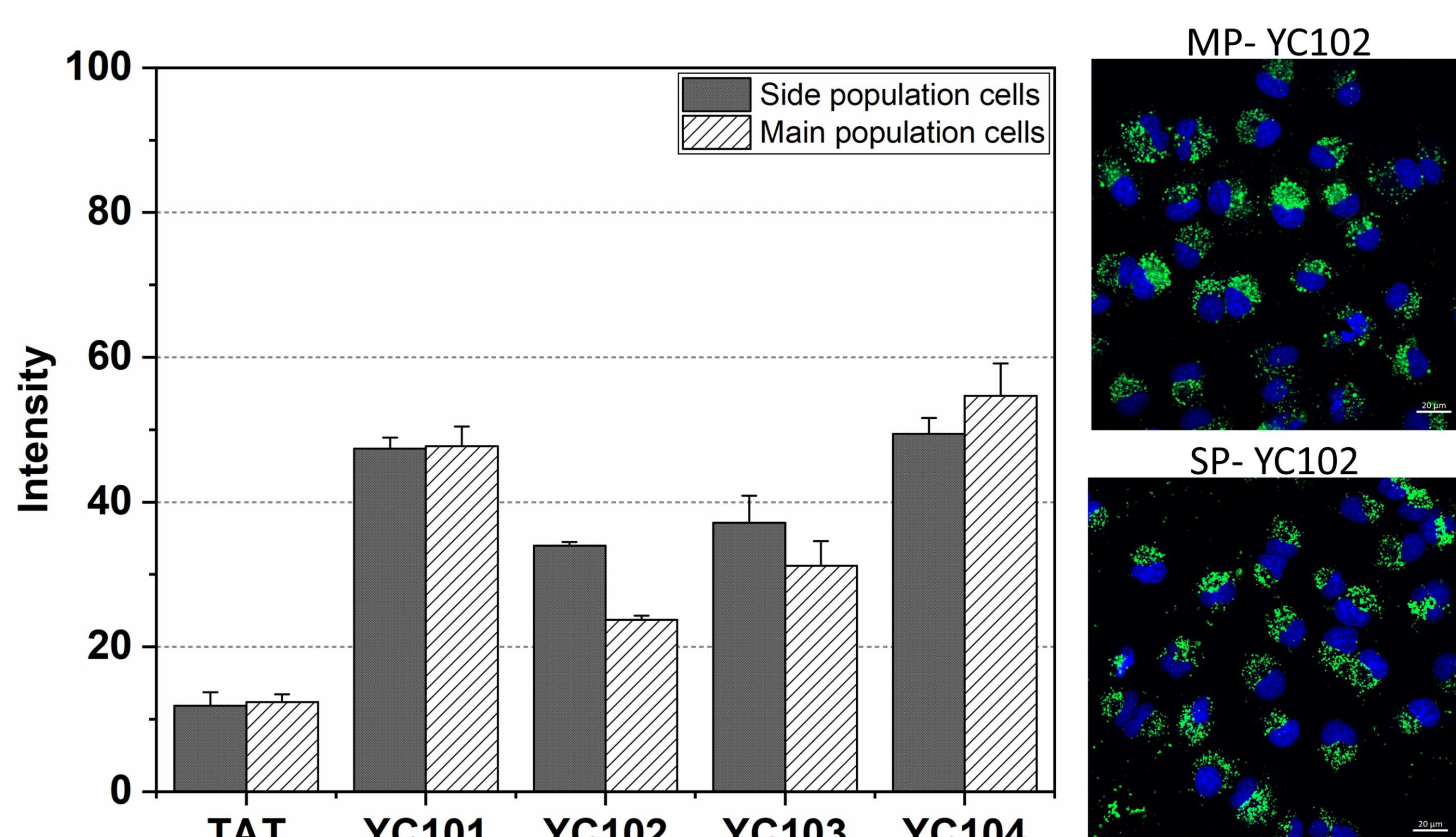
(c) Cellular uptake of peptides



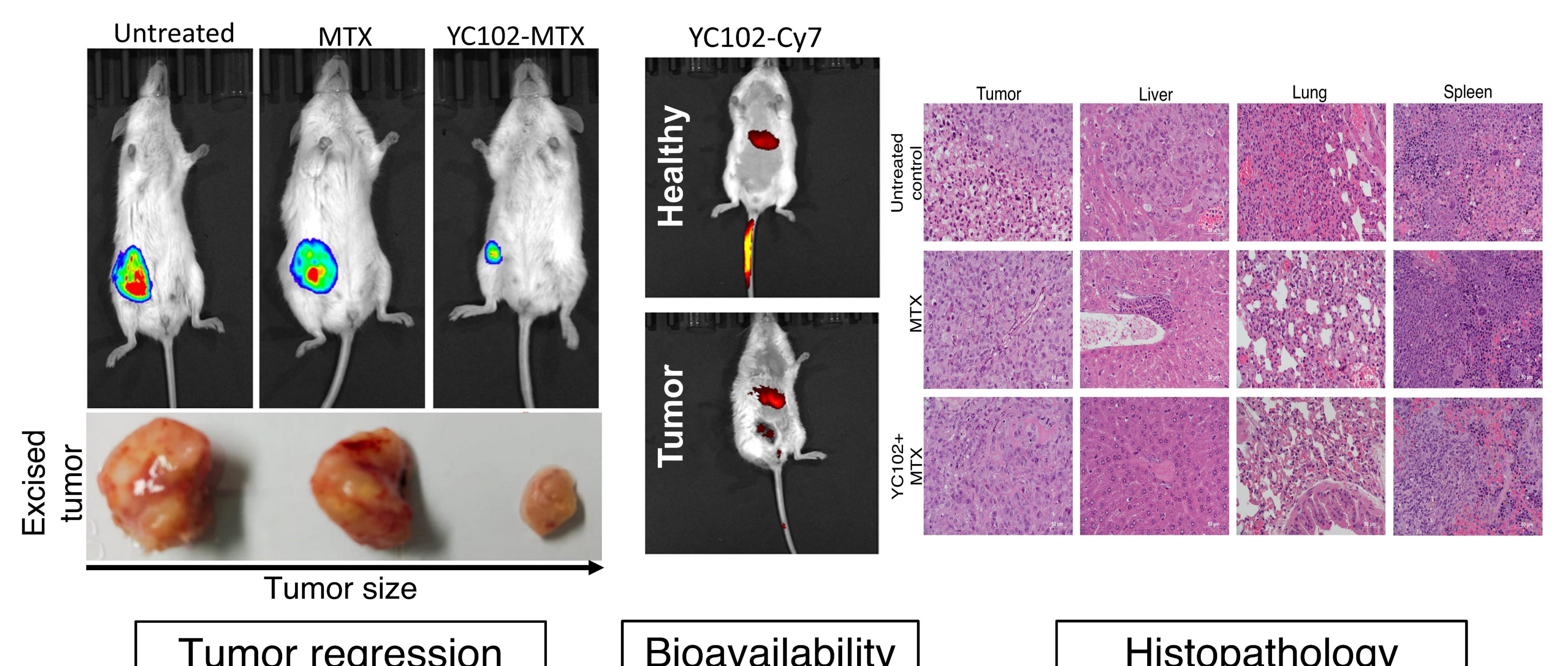
(d) Cytotoxicity of peptide-drug conjugates



(e) Isolation and cellular uptake in SP cells



(f) In-vivo mouse model studies



SUMMARY

Development of stable cell-penetrating peptides for effective and targeted drug delivery with applications in cancer and cancer drug resistance.

ACKNOWLEDGEMENTS



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